Oceanographic data from Frobisher Bay in the Eastern Canadian Arctic for the years 1984, 1985 and 1986

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ABSTRACT

Lovrity, J.E. 1987. Oceanographic data from Frobisher Bay in the Eastern Canadian Arctic for the years 1984, 1985 and 1986. Can. Data Rep. Fish Aquat. Sci. 694: v + 82 p.

Tables of oceanographic data from 48 station occupations in Frobisher Bay include information on temperature, salinity, nitrite, nitrate, phosphate, silicate, ammonia and chlorophyll a, b, and c, phaeopigments, plant carotenoids and observations on particulate and dissolved organic carbon from the sea ice and from the water column.

Key words: Arctic waters, Canada north coast, sea ice, temperature, salinity, nutrients, pigments, chlorophyll, carbon.

RESUME

Lovrity, J.E. 1987. Oceanographic data from Frobisher Bay in the Eastern Canadian Arctic for the years 1984, 1985 and 1986. Can. Data Rep. Fish Aquat. Sci. 694: v + 82 p.

Les tableaux de données océanographiques provenant de 48 stations d'échantillonnage contiennent des informations sur la température, la salinité, le nitrite, le nitrate, le phosphate, le silicate, l'ammoniac, et les chlorophylles a, b, et c, ainsi que les phaeopigments, les caroténoides des plantes, et les concentrations du carbone organique dissout et particulaire relatives à la colonne d'eau et de la glace.

Mots-clés: Les eaux arctiques, les côtes Canadiennes, glace de mer, température, salinité, éléments nutritifs, pigments, carbone.

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INTRODUCTION

The data in this report were collected to support ongoing marine ecological research in Frobisher Bay, by the Arctic Biological Station of the Institut Maurice-Lamontagne. This volume of oceanographic environmental chemistry data is the fifth and last in the series dealing with the same geographical area (Lovrity, 1981, 1982a, 1982b, 1984). Some of the stations have been repeatedly sampled over many years. These volumes, along with an earlier work by Grainger (1971), form a substantial data base of environmental conditions at several precise marine locations.

Open water work was done mainly from the 6.7 metre freighter canoe Pseudocalanus specially equipped for oceanographic work, and occasionally from other similar craft. Winter sampling was from the surface of the sea ice using snowmobiles and other winter equipment.

Data from the sea ice are placed at the beginning of the tables.

METHODS

Ice core samples for nutrient and other analyses were collected with a 7.6-cm SIPRE (CRREL) corer. The cores were cut with a teflon coated saw to three equal lengths, the sections placed in stainless steel trays, thawed in a waterbath and the resulting liquid subsampled for analytical work. To obtain measurements from the bottom of the sea ice, 5-cm sections were cut off from the lower surface of several cores and treated as the other ice samples. Handling of the sections and subsampling of liquid was consistent with analytical requirements.

During collecting work from the sea ice, the undersurface of the ice was considered as the surface depth (0 metre) of water and subsequent collecting depths were measured from that point. Total station depth was measured from the surface of the water in the ice hole and recorded as such in this report.

Standard oceanographic depths determined and regularly used by the Arctic Biological Station were again sampled in 1984, 1985 and 1986. As part of certain studies a single set of samples was collected at St. 85-52 during the spring ice period. The Station 5B samples were collected in support of long term photosynthetic studies.

When collecting from boats, standard collecting procedures were followed. Water temperatures were measured either by plunging an immersion thermometer or the probe of an electronic digital thermometer into the water collecting bottle immediately after it was returned to the surface.

Salinity values were determined using a Bissett Berman model 6230 laboratory salinometer or a Goldbert T/C model 10419 refractometer.

Phosphate-phosphorus, nitrite-nitrogen, nitrate-nitrogen and silicate-silicon, were analysed following Strickland and Parsons, 1972. Plant pigments were analysed following Strickland and Parsons and the values were corrected by using the equations of Jeffrey and Humphrey, 1975. Ammonia-nitrogen was analysed following the descriptions of G. Dal Pont et al., 1974. Particulate and dissolved organic carbon data were obtained following Bunch, 1979.

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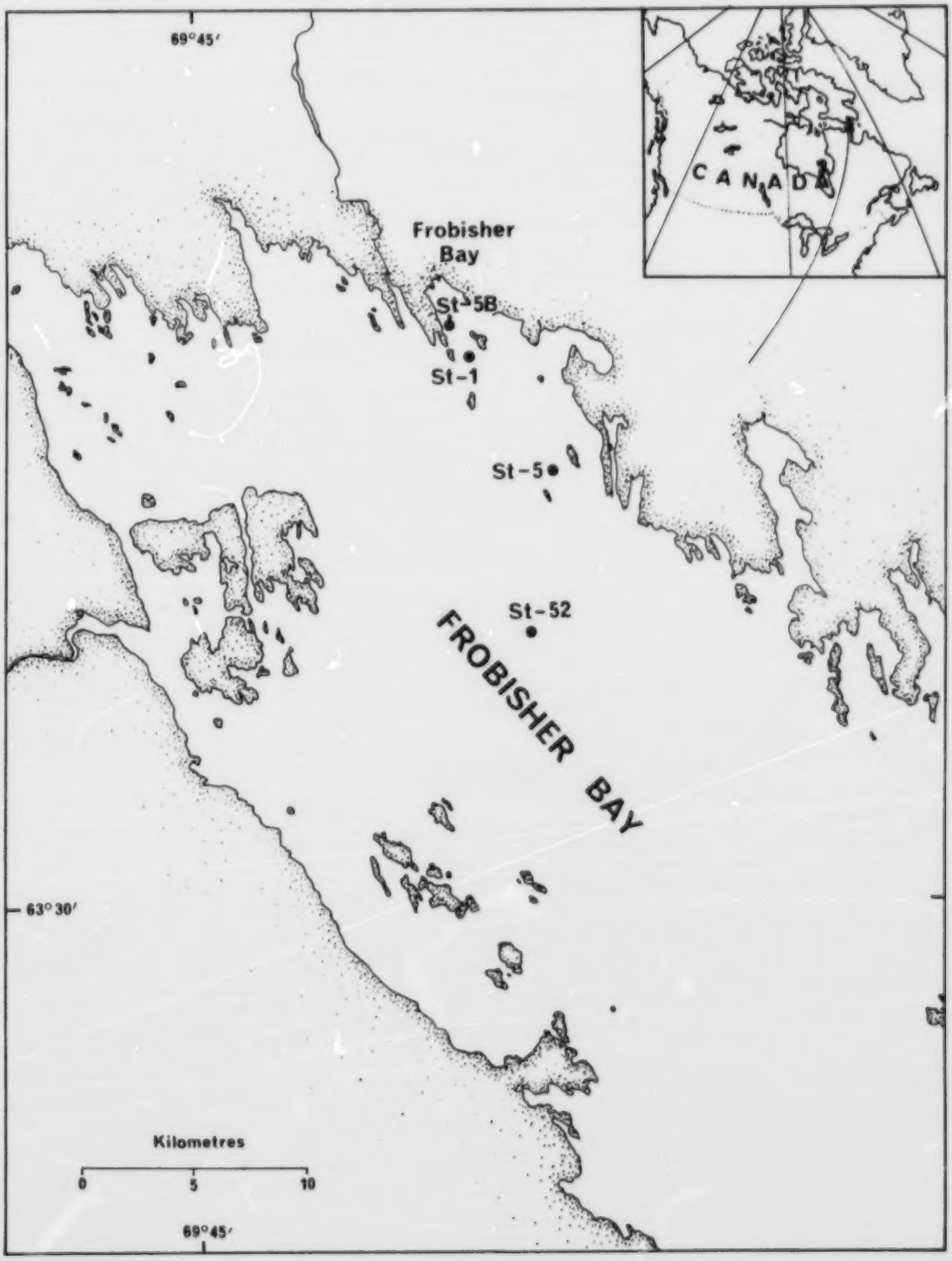

Figure 1 Map of Station Positions

Table 1. Station Locations.

Station	N. Latitude	W. Longitude
1	63°42.8'	68°30.8'
5	63°40.2'	68°26.3'
5B	63°43.5'	68°31.7'
52	63°36.15'	68°27.4'

Note: Station locations identical for all three years

Table 2. Explanations of data headings.

Table headings	
Time:	Local, in hours
Station depth:	Depth to bottom, in metres
Air temp.:	Air temperature, in degrees Celsius
Cloud:	Cover, in eighths
Wind:	Speed, in kilometres per hour
Ice cover:	Thickness of sea ice, in centimetres
Snow cover:	Thickness of snow, in centimetres
Secchi:	Secchi disc depth, in metres
Water properties	
Depth (water):	Depth of sample, in metres
Depth (ice):	Thickness and location of sample, in centimetres
Temp.:	Water temperature, in degrees Celsius
Salinity:	As parts per thousand
NO_2-N:	Nitrite, as microgram-atoms per litre
NO_3-N:	Nitrate, as microgram-atoms per litre
PO_4-P:	Phosphate, as microgram-atoms per litre
SiO_3-Si:	Silicate, as microgram-atoms per litre
NH_3-N:	Ammonia, as microgram-atoms per litre
DOC:	Dissolved organic carbon, as milligrams per litre
POC:	Particulate organic carbon as micrograms per litre
Ch.a:	Chlorophyll a, as milligrams per cubic metre
Ch.b:	Chlorophyll b, as milligrams per cubic metre

Table 2. Explanations of data headings.

Water properties (cont'd)

Ch.c:	Chlorophyll c, as milligrams per cubic metre
Pl.carot.:	Plant carotenoids, as m-SPU = milli-specified plant pigment units per cubic metre
Phaeo.:	Phaeo-pigments, as milligrams per cubic metre

Table 3. Frobisher Bay ice data, 1984

Station	Date	Time	Sta. depth	Air temp.
84-1	16 Mar 84	1410	42	-

Cloud	Wind	Ice cover	Snow cover	Secchi
1	5	157	-	-

Depth	Temp.	Salinity	NO_2-N	NO_3-N	PO_4-P	SiO_3-Si	NH_3-N
0- 52	-	5.295	0.16	0.72	0.10	1.56	3.37
52-104	-	5.020	0.12	0.50	0.01	0.97	3.37
104-157	-	5.928	0.21	1.06	0.09	1.75	0.82

Depth	POC	DOC	Ch.a	Ch.b	Ch.c	Pl.carot.	Phaeo.
0- 52	-	-	0.44	0.14	0.35	0.08	0.00
52-104	-	-	0.27	0.00	0.24	0.04	0.22
104-157	-	-	7.44	0.00	1.96	2.14	0.82

Station	Date	Time	Sta. depth	Air temp.
84-1	25 May 84	1830	42	-

Cloud	Wind	Ice cover	Snow cover	Secchi
4	-	168	-	-

Depth	Temp.	Salinity	NO_2-N	NO_3-N	PO_4-P	SiO_3-Si	NH_3-N
163-168	-	7.343	0.08	4.86	0.83	4.65	6.72

Depth	POC	DOC	Ch.a	Ch.b	Ch.c	Pl.carot.	Phaeo.
163-168	-	-	109.13	1.34	28.06	38.48	0.00

Station	Date	Time	Sta. depth	Air temp.
84-1	26 May 84	1120	42	-2.0

Cloud	Wind	Ice cover	Snow cover	Secchi
7	5	168	28-50	5.5

Depth	Temp.	Salinity	NO_2-N	NO_3-N	PO_4-P	SiO_3-Si	NH_3-N
0- 56	-	4.569	0.00	0.36	0.16	1.59	3.06
56-112	-	4.673	0.00	0.24	0.41	1.49	2.30
112-168	-	6.170	0.07	0.74	0.49	3.02	3.91

Depth	POC	DOC	Ch.a	Ch.b	Ch.c	Pl.carot.	Phaeo.
0- 56	-	-	0.80	0.45	0.75	0.00	0.44
56-112	-	-	1.62	0.09	0.47	0.54	0.17
112-168	-	-	11.61	0.13	2.84	3.28	1.91

Station	Date	Time	Sta. depth	Air temp.
84-5	17 Mar 84	1400	42	-

Cloud	Wind	Ice cover	Snow cover	Secchi
8	10	165	-	-

Depth	Temp.	Salinity	NO_2-N	NO_3-N	PO_4-P	SiO_3-Si	NH_3-N
0- 55	-	6.397	0.08	0.66	0.19	2.06	2.16
55-110	-	5.823	0.09	0.88	0.19	3.31	3.61
110-165	-	6.741	0.11	1.41	0.30	2.58	2.28

Depth	POC	DOC	Ch.a	Ch.b	Ch.c	Pl.carot.	Phaeo.
0- 55	-	-	0.14	0.08	0.47	0.09	0.04
55-110	-	-	0.75	0.05	0.45	0.24	0.00
110-165	-	-	18.39	0.06	4.36	4.92	2.03

Station	Date	Time	Sta. depth	Air temp.
84-5	29 May 84	1430	48	-2.0

Cloud	Wind	Ice cover	Snow cover	Secchi
8	25	193	12	-

Depth	Temp.	Salinity	NO_2-N	NO_3-N	PO_4-P	SiO_3-Si	NH_3-N
0- 64	-	5.745	0.00	0.46	0.00	2.31	4.01
64-128	-	5.672	0.00	0.45	0.00	2.07	3.44
128-193	-	6.732	0.09	2.10	0.00	4.35	5.71
188-193	-	6.274	0.21	24.38	6.04	11.39	4.18

Depth	POC	DOC	Ch.a	Ch.b	Ch.c	Pl.carot.	Phaeo.
0- 64	-	-	0.30	0.17	0.25	0.00	0.17
64-128	-	-	1.24	0.60	1.02	0.03	0.54
128-193	-	-	40.16	0.00	8.91	11.27	15.67
188-193	-	-	340.65	170.14	242.25	34.59	532.93

Table 4. Frobisher Bay ice data, 1985

Station	Date	Time	Sta. depth	Air temp.
85-1	01 Feb 85	1148	43	-31.0

Cloud	Wind	Ice cover	Snow cover	Secchi
0	0	115	30	7.5

Depth	Temp.	Salinity	NO_2-N	NO_3-N	PO_4-P	SiO_3-Si	NH_3-N
0- 38	-	7.214	0.01	0.70	0.00	2.50	3.92
38- 76	-	4.779	0.03	0.63	0.00	2.12	5.24
76-115	-	4.830	0.00	1.09	0.00	2.21	4.02
110-115	-	5.883	0.00	2.20	0.14	2.85	5.61

Depth	POC	DOC	Ch.a	Ch.b	Ch.c	Pl.carot.	Phaeo.
0- 38	-	-	0.89	0.81	1.17	0.00	0.23
38- 76	-	-	0.84	0.16	0.26	0.00	0.00
76-115	-	-	3.59	0.56	1.59	0.73	0.31
110-115	1502	23.02	5.23	0.00	1.39	1.57	0.20

Station	Date	Time	Sta. depth	Air temp.
85-1	14 Mar 85	1700	47	-16.0

Cloud	Wind	Ice cover	Snow cover	Secchi
8	-	147	25	6.0

Depth	Temp.	Salinity	NO_2-N	NO_3-N	PO_4-P	SiO_3-Si	NH_3-N
0- 49	-	6.538	0.00	0.66	0.19	4.70	0.59
49- 98	-	5.745	0.06	0.62	0.12	3.49	0.10
98-147	-	6.372	0.03	0.99	0.36	4.69	1.14
142-147	-	8.122	0.04	4.48	0.67	7.03	0.34

Depth	POC	DOC	Ch.a	Ch.b	Ch.c	Pl.carot.	Phaeo.
0- 49	104	1.54	0.37	0.27	0.36	0.00	0.00
49- 98	154	2.91	0.33	0.11	0.20	0.12	0.00
98-147	393	2.15	13.72	0.00	3.21	4.01	1.87
142-147	656	2.13	37.15	0.00	8.41	13.27	5.55

Station	Date	Time	Sta. depth	Air temp.
85-1	24 Apr 85	1630	41	-1.0

Cloud	Wind	Ice cover	Snow cover	Secchi
8	18	164	25	6.0

Depth	Temp.	Salinity	NO_2-N	NO_3-N	PO_4-P	SiO_3-Si	NH_3-N
0- 55	-	6.460	0.06	0.77	0.00	2.15	0.00
55-110	-	4.498	0.05	0.44	0.00	1.39	0.00
110-164	-	5.098	0.07	0.85	0.44	1.86	0.00
159-164	-	3.335	0.09	6.20	1.54	2.50	2.99

Depth	POC	DOC	Ch.a	Ch.b	Ch.c	Pl.carot.	Phaeo.
0- 55	-	-	0.16	0.09	0.27	0.31	0.05
55-110	-	-	0.27	0.26	0.05	0.39	0.09
110-164	-	-	15.12	0.00	3.14	4.87	0.00
159-164	4379	16.30	153.27	10.28	46.25	47.54	94.38

Station	Date	Time	Sta. depth	Air temp.
85-1	29 May 85	1105	42	3.8

Cloud	Wind	Ice cover	Snow cover	Secchi
5	5	182	15	10

Depth	Temp.	Salinity	NO_2-N	NO_3-N	PO_4-P	SiO_3-Si	NH_3-N
0- 61	-	3.104	0.03	0.34	0.53	0.96	6.34
61-122	-	3.213	0.00	0.25	0.21	0.97	10.63
122-182	-	+2.8	0.04	0.33	0.31	*0.84	3.73
177-182	-	+2.8	0.04	0.65	0.67	*2.82	4.52

Depth	POC	DOC	Ch.a	Ch.b	Ch.c	Pl.carot.	Phaeo.
0- 61	-	-	0.34	0.05	0.00	0.27	0.11
61-122	-	-	0.49	0.32	0.31	0.18	0.16
122-182	-	-	1.64	0.16	0.36	0.63	0.89
177-182	2897	6.17	24.53	0.00	1.79	6.36	3.68

*high SiO_3-Si values, uncorrected for low salinity

Station	Date	Time	Sta. depth	Air temp.
85-5	09 Feb 85	0930	62	-35.0

Cloud	Wind	Ice cover	Snow cover	Secchi
0	10	119	10-20	5.5

Depth	Temp.	Salinity	NO_2-N	NO_3-N	PO_4-P	SiO_3-Si	NH_3-N
0- 40	-	6.525	0.00	1.10	0.74	8.20	1.10
40- 80	-	6.672	0.08	1.07	0.48	7.93	2.35
80-119	-	5.867	0.07	1.26	1.36	7.09	2.22
114-119	-	4.524	0.00	1.19	0.79	5.72	0.75

Depth	POC	DOC	Ch.a	Ch.b	Ch.c	Pl.carot.	Phaeo.
0- 40	-	-	2.70	0.39	0.75	0.41	1.76
40- 80	-	-	12.59	0.08	2.86	3.34	8.28
80-119	-	-	6.25	0.62	1.69	1.25	5.50
114-119	2375	2.38	9.76	0.34	2.64	2.41	2.91

Station	Date	Time	Sta. depth	Air temp.
85-5	01 June 85	1045	56	6.5

Cloud	Wind	Ice cover	Snow cover	Secchi
2	0	161	15	-

Depth	Temp.	Salinity	NO_2-N	NO_3-N	PO_4-P	SiO_3-Si	NH_3-N
0- 54	-	+2.8	0.04	0.67	0.12	*1.93	3.68
54-108	-	3.572	0.02	0.13	0.07	0.81	2.72
108-161	-	4.085	0.03	0.17	0.19	0.91	2.30
156-161	-	4.072	0.01	0.67	1.11	3.26	2.69

Depth	POC	DOC	Ch.a	Ch.b	Ch.c	Pl.carot.	Phaeo.
0- 54	-	-	0.66	0.34	0.25	0.27	0.44
54-108	-	-	0.82	0.33	0.55	0.33	0.04
108-161	-	-	8.84	0.41	2.44	3.19	3.23
156-161	5876	4.09	93.90	0.00	19.61	36.40	36.90

*high SiO_3-Si value, uncorrected for low salinity

Station	Date	Time	Sta. depth	Air temp.
85-52	29 Apr 85	1050	109	-10.0

Cloud	Wind	Ice cover	Snow cover	Secchi
0	35	165	36	7.0

Depth	Temp.	Salinity	NO_2-N	NO_3-N	PO_4-P	SiO_3-Si	NH_3-N
0- 55	-	8.448	0.08	1.64	0.00	3.57	2.22
55-110	-	5.881	0.00	0.87	0.14	1.49	0.24
110-165	-	6.126	0.01	1.28	0.22	1.40	1.70
160-165	-	6.442	0.00	11.67	3.19	5.61	2.73

Depth	POC	DOC	Ch.a	Ch.b	Ch.c	Pl.carot.	Phaeo.
0- 55	-	-	0.70	0.50	0.41	0.00	0.00
55-110	-	-	0.76	0.49	0.28	0.00	0.17
110-165	-	-	15.04	0.00	2.91	4.03	4.25
160-165	5892	13.86	169.65	41.92	75.59	33.50	169.81

Table 5. Frobisher Bay ice data, 1986

Station	Date	Time	Sta. depth	Air temp.
86-1	05 Mar 86	1235	-	-29.4

Cloud	Wind	Ice cover	Snow cover	Secchi
1	16	86	36	-

Depth	Temp.	Salinity	NO_2-N	NO_3-N	PO_4-P	SiO_3-Si	NH_3-N
0-29	-	7.059	0.04	1.03	4.05	3.15	1.47
29-57	-	4.572	0.02	0.83	0.79	0.71	1.44
57-86	-	4.773	0.04	0.76	0.64	2.05	1.44
81-86	-	3.554	0.04	0.89	0.31	2.76	2.00

Depth	POC	DOC	Ch.a	Ch.b	Ch.c	Pl.carot.	Phaeo.
0-29	-	-	2.06	0.50	0.68	0.50	0.03
29-57	-	-	0.60	0.27	0.29	0.27	0.00
57-86	-	-	0.35	0.00	0.16	0.80	0.00
81-86	1418	2.03	0.97	0.59	1.11	4.19	1.23

Station	Date	Time	Sta. depth	Air temp.
86-1	12 Mar 86	1440	37	-27

Cloud	Wind	Ice cover	Snow cover	Secchi
0	0	93	-	-

Depth	Temp.	Salinity	NO_2-N	NO_3-N	PO_4-P	SiO_3-Si	NH_3-N
0-31	-	14.298	0.03	3.41	0.29	3.94	1.38
31-62	-	5.836	0.01	1.15	0.19	1.79	1.33
62-93	-	5.256	0.00	0.97	0.19	1.96	1.33
88-93	-	6.538	0.00	1.10	0.33	2.42	1.50

Depth	POC	DOC	Ch.a	Ch.b	Ch.c	Pl.carot.	Phaeo.
0-31	104	1.07	0.32	0.30	0.37	0.03	0.00
31-62	108	0.96	0.75	0.00	0.15	0.03	0.00
62-93	121	0.94	0.99	0.36	0.37	0.14	0.00
88-93	166	1.06	1.38	0.53	0.77	0.05	0.00

Station	Date	Time	Sta. depth	Air temp.
86-1	07 May 86	1015	40	0

Cloud	Wind	Ice cover	Snow cover	Secchi
2	3	126	28	9

Depth	Temp.	Salinity	NO_2-N	NO_3-N	PO_4-P	SiO_3-Si	NH_3-N
0- 42	-	5.239	0.00	0.33	0.12	2.38	1.02
42- 84	-	4.398	0.00	0.06	0.07	3.29	1.02
84-126	-	6.248	0.04	0.68	0.38	2.12	1.07
121-126	-	7.150	0.04	8.16	1.70	7.56	1.33

Depth	POC	DOC	Ch.a	Ch.b	Ch.c	Pl.carot.	Phaeo.
0- 42	89	1.12	0.30	0.47	0.66	0.00	0.00
42- 84	84	0.90	0.49	0.20	0.47	0.07	0.00
84-126	281	1.78	29.54	0.00	7.46	8.82	6.89
121-126	2764	4.83	239.33	0.00	69.92	76.89	135.28

Station	Date	Time	Sta. depth	Air temp.
86-1	13 May 86	1142	44.5	4.2

Cloud	Wind	Ice cover	Snow cover	Secchi
7	9	129	32	8

Depth	Temp.	Salinity	NO_2-N	NO_3-N	PO_4-P	SiO_3-Si	NH_3-N
0- 43	-	4.618	0.00	0.22	0.10	2.75	1.83
43- 86	-	4.400	0.01	0.13	0.90	0.00	1.21
86-129	-	5.459	0.04	0.56	0.62	0.63	4.19
124-129	-	8.026	0.01	3.80	3.02	4.87	1.39

Depth	POC	DOC	Ch.a	Ch.b	Ch.c	Pl.carot.	Phaeo.
0- 43	182	0.99	1.51	0.29	0.58	0.24	0.03
43- 86	149	0.85	1.35	0.18	0.56	0.43	0.20
86-129	721	1.62	37.53	0.00	8.90	12.08	10.68
124-129	3752	4.52	235.81	0.00	57.07	73.88	85.91

Table 6. Frobisher Bay oceanographic data, 1984

Station	Date	Time	Sta. depth	Air temp.
84-1	12 Mar 84	1500	42	-20.0

Cloud	Wind	Ice cover	Snow cover	Secchi
8	0	157	40	-

Depth	Temp.	Salinity	NO_2-N	NO_3-N	PO_4-P	SiO_3-Si	NH_3-N
0	-1.75	33.192	0.11	4.05	0.90	19.37	2.04
1	-1.75	33.199	0.13	4.24	0.85	12.59	2.07
3	-1.75	-	-	-	-	-	-
5	-1.75	33.198	0.10	3.55	0.84	17.35	1.28
7	-1.75	33.179	0.23	3.33	0.88	16.68	1.05
10	-1.75	33.182	0.14	7.65	0.87	11.99	1.50
20	-1.75	33.185	0.14	6.40	0.84	16.11	1.36
30	-1.80	33.218	0.09	6.18	0.94	17.88	1.26
40	-1.80	33.250	0.13	7.64	0.97	18.80	1.56

Depth	POC	DOC	Ch.a	Ch.b	Ch.c	Pl.carot.	Phaeo.
0	-	-	0.08	0.00	0.07	0.04	0.12
1	-	-	0.12	0.00	0.00	0.03	0.28
3	-	-	-	-	-	-	-
5	-	-	0.12	0.00	0.00	0.08	0.12
7	-	-	0.12	0.00	0.15	0.03	0.04
10	-	-	0.12	0.00	0.07	0.06	0.12
20	-	-	0.15	0.00	0.03	0.06	0.00
30	-	-	0.19	0.00	0.11	0.04	0.00
40	-	-	0.19	0.00	0.11	0.00	0.19

Station	Date	Time	Sta. depth	Air temp.
84-1	01 Jun 84	1040	42	-1.2

Cloud	Wind	Ice cover	Snow cover	Secchi
0	0	-	-	6.5

Depth	Temp.	Salinity	NO_2-N	NO_3-N	PO_4-P	SiO_3-Si	NH_3-N
0	-	30.518	0.07	7.66	1.36	16.58	1.40
1	-	31.945	0.08	8.06	1.20	18.26	1.42
3	-	32.642	0.09	8.39	1.08	19.04	1.29
5	-	33.035	0.02	8.66	0.90	18.26	0.78
7	-	33.132	0.06	8.63	0.84	18.19	1.44
10	-	33.170	0.07	8.70	1.13	17.65	0.46
20	-	33.184	0.07	8.76	1.07	17.44	0.23
30	-	33.195	0.07	8.66	0.88	14.77	0.51
40	-	33.192	0.05	8.81	1.13	14.01	0.28

Depth	POC	DOC	Ch.a	Ch.b	Ch.c	Pl.carot.	Phaeo.
0	-	-	0.25	0.09	0.36	0.02	0.01
1	-	-	0.19	0.10	0.02	0.01	0.00
3	-	-	0.24	0.17	0.09	0.00	0.00
5	-	-	0.08	0.06	0.01	0.00	0.00
7	-	-	0.09	0.01	0.03	0.02	0.00
10	-	-	0.11	0.04	0.01	0.00	0.00
20	-	-	0.09	0.01	0.03	0.00	0.00
30	-	-	0.09	0.01	0.00	0.00	0.00
40	-	-	0.06	0.03	0.00	0.00	0.05

Station	Date	Time	Sta. depth	Air temp.
84-1	24 Jul 84	1440	42	-

Cloud	Wind	Ice cover	Snow cover	Secchi
7	6	0	0	-

Depth	Temp.	Salinity	NO_2-N	NO_3-N	PO_4-P	SiO_3-Si	NH_3-N
0	4.0	14.999	0.02	0.00	0.09	4.49	0.63
1	3.5	11.741	0.03	0.00	0.07	4.31	1.23
3	2.3	23.026	0.03	0.00	0.19	1.97	0.04
5	0.0	30.364	0.02	0.00	0.35	2.34	1.08
7	-1.0	31.757	0.03	0.00	0.35	2.34	0.00
10	-1.0	31.980	0.03	0.02	0.37	3.93	0.00
20	-1.3	32.327	0.08	2.23	0.56	5.43	0.19
30	-1.5	32.400	0.07	2.85	0.58	6.74	0.30
40	-1.7	32.426	0.06	2.77	0.56	5.81	0.56

Depth	POC	DOC	Ch.a	Ch.b	Ch.c	Pl.carot.	Phaeo.
0	169	1.13	0.84	0.02	1.49	0.24	0.00
1	179	1.04	1.02	0.90	0.00	0.86	0.00
3	214	1.24	1.00	0.25	0.53	0.58	0.00
5	422	1.15	3.28	0.22	1.58	1.97	0.84
7	540	0.96	6.81	0.97	2.64	3.15	1.70
10	527	1.11	8.66	0.65	2.88	3.54	0.64
20	358	1.13	4.25	0.27	1.37	1.53	0.16
30	155	1.34	1.70	0.12	0.47	0.67	0.00
40	161	1.26	1.16	0.45	0.63	0.22	0.00

20% ice coverage over Station area

Station	Date	Time	Sta. depth	Air temp.
84-1	27 Jul 84	0800	49	6.0

Cloud	Wind	Ice cover	Snow cover	Secchi
8	0	-	-	9.5

Depth	Temp.	Salinity	NO_2-N	NO_3-N	PO_4-P	SiO_3-Si	NH_3-N
0	-0.8	32.192	0.08	1.71	0.56	7.02	0.22
1	-1.0	32.021	0.08	2.94	0.54	5.71	0.07
3	-1.0	32.174	0.06	3.00	0.88	8.43	0.07
5	-1.3	32.198	0.07	1.70	0.56	5.52	0.56
7	-1.0	32.230	0.07	3.85	0.70	-	0.26
10	-1.4	32.299	0.08	5.04	0.63	7.49	0.45
20	-1.5	32.320	0.09	5.03	0.95	10.49	0.52
30	-1.5	32.376	0.06	3.61	1.26	9.55	0.67
40	-1.5	32.364	0.07	5.50	0.84	8.90	0.60

Depth	POC	DOC	Ch.a	Ch.b	Ch.c	Pl.carot.	Phaeo.
0	-	-	5.34	0.11	1.67	2.07	0.71
1	239	1.17	5.79	0.17	1.86	2.24	0.19
3	-	-	6.61	0.00	1.70	2.69	0.72
5	343	1.19	6.20	0.09	1.76	2.41	0.75
7	-	-	5.45	0.12	1.98	2.20	0.08
10	220	1.37	4.09	0.18	1.10	1.63	0.01
20	221	1.24	2.79	0.00	0.90	1.13	0.00
30	154	1.25	1.99	0.00	0.80	0.63	0.00
40	142	1.46	1.79	0.31	0.96	0.43	0.00

Station	Date	Time	Sta. depth	Air temp.
84-1	03 Aug 84	0830	44.5	4.0

Cloud	Wind	Ice cover	Snow cover	Secchi
0	0	-	-	5.5

Depth	Temp.	Salinity	NO_2-N	NO_3-N	PO_4-P	SiO_3-Si	NH_3-N
0	2.0	19.891	0.02	0.40	0.23	10.21	0.67
1	0.7	31.096	0.03	0.00	0.44	8.15	0.00
3	0.3	31.627	0.02	0.00	0.35	4.12	0.00
5	-0.1	31.950	0.03	0.10	0.37	4.03	0.04
7	-0.3	32.109	0.05	0.26	0.35	3.84	0.07
10	-0.5	32.141	0.05	0.35	0.42	4.12	0.00
20	-0.7	32.227	0.06	0.89	0.77	8.61	0.34
30	-1.0	32.282	0.07	1.25	0.33	3.84	0.34
40	-1.0	32.334	0.05	1.64	0.37	4.21	0.48

Depth	POC	DOC	Ch.a	Ch.b	Ch.c	Pl.carot.	Phaeo.
0	189	1.23	0.95	0.18	0.45	0.33	0.00
1	378	1.62	5.78	0.28	1.82	1.86	1.91
3	440	1.43	6.69	0.27	2.35	2.05	2.40
5	400	1.39	7.77	0.32	2.58	2.17	2.00
7	423	1.30	7.88	0.37	2.52	2.24	1.87
10	388	1.30	7.71	0.35	2.59	2.08	1.36
20	429	1.18	6.35	0.27	2.11	1.79	1.39
30	380	1.42	5.78	0.25	2.06	1.50	0.91
40	242	1.10	4.06	0.43	1.60	0.93	0.83

Station	Date	Time	Sta. depth	Air temp.
84-1	10 Aug 84	0914	44.5	3.5

Cloud	Wind	Ice cover	Snow cover	Secchi
8	5	-	-	5.0

Depth	Temp.	Salinity	NO_2-N	NO_3-N	PO_4-P	SiO_3-Si	NH_3-N
0	1.5	28.673	0.06	0.49	0.39	4.56	1.80
1	0.7	30.901	0.03	0.19	0.34	2.81	0.50
3	0.3	31.843	0.04	0.07	0.30	2.62	0.31
5	0.0	32.040	0.03	0.08	0.27	2.81	0.00
7	0.0	32.165	0.03	0.15	0.30	2.16	0.02
10	-0.3	32.219	0.04	0.64	0.50	4.74	0.18
20	-1.0	32.392	0.05	1.62	0.52	4.37	0.63
30	-1.0	32.419	0.05	1.82	0.61	6.03	0.66
40	-1.0	32.445	0.04	2.20	0.36	4.56	0.73

Depth	POC	DOC	Ch.a	Ch.b	Ch.c	Pl.carot.	Phaeo.
0	245	1.21	3.96	0.34	1.08	1.11	1.09
1	309	1.11	5.56	0.20	1.68	1.40	1.67
3	434	1.20	7.57	0.08	2.15	1.96	2.08
5	454	0.98	8.19	0.15	2.40	2.02	2.11
7	455	1.10	8.37	0.00	2.41	2.03	2.71
10	322	1.04	7.06	0.05	1.97	1.71	1.83
20	287	1.14	4.19	0.33	1.13	0.98	1.01
30	193	1.14	2.81	0.41	0.94	0.62	1.04
40	144	1.10	2.37	0.25	0.80	0.52	0.97

Station	Date	Time	Sta. depth	Air temp.
84-1	16 Aug 84	0858	48.0	4.0

Cloud	Wind	Ice cover	Snow cover	Secchi
8	20	-	-	7.5

Depth	Temp.	Salinity	NO_2-N	NO_3-N	PO_4-P	SiO_3-Si	NH_3-N
0	0.0	32.061	0.06	1.02	0.36	2.03	0.40
1	-0.3	32.084	0.05	0.81	0.25	2.40	0.05
3	-0.5	32.182	0.07	0.79	0.41	3.60	0.05
5	-0.8	32.211	0.06	0.60	0.28	3.14	0.02
7	-0.8	32.231	0.06	1.24	0.28	2.59	0.08
10	-0.8	32.247	0.08	1.15	0.35	3.33	0.08
20	-1.0	32.384	0.07	2.02	0.46	3.60	0.31
30	-1.0	32.475	0.10	3.35	0.37	3.60	0.50
40	-0.9	32.476	0.02	1.61	0.41	3.70	0.63

Depth	POC	DOC	Ch.a	Ch.b	Ch.c	Pl.carot.	Phaeo.
0	217	1.22	6.54	0.09	2.00	1.37	1.99
1	318	1.14	6.29	0.38	2.20	1.14	1.62
3	302	1.16	6.13	0.19	1.97	1.25	1.70
5	247	0.92	5.62	0.17	1.67	1.14	1.63
7	295	1.14	5.74	0.11	1.78	1.18	1.95
10	189	0.98	5.16	0.19	1.69	1.10	1.15
20	183	1.10	3.23	0.18	1.25	0.64	1.01
30	254	1.15	2.70	0.34	1.24	0.41	0.72
40	194	1.29	2.30	0.34	1.13	0.34	0.65

Station	Date	Time	Sta. depth	Air temp.
84-1	23 Aug 84	0918	44.5	5.0

Cloud	Wind	Ice cover	Snow cover	Secchi
-	-	-	-	9.0

Depth	Temp.	Salinity	NO_2-N	NO_3-N	PO_4-P	SiO_3-Si	NH_3-N
0	-0.6	32.051	0.07	2.22	0.68	6.22	2.79
1	-0.6	32.499	0.05	1.92	0.59	5.20	0.74
3	-0.6	32.502	0.05	2.31	0.48	4.74	1.26
5	-0.6	32.498	0.08	1.60	0.71	6.58	1.00
7	-0.6	32.498	0.05	2.49	0.55	5.02	1.15
10	-0.7	32.509	0.07	3.96	0.41	3.82	1.04
20	-0.7	32.532	0.06	2.05	0.71	6.86	1.04
30	-0.7	32.552	0.04	1.82	0.82	7.23	0.89
40	-0.6	32.560	0.04	1.73	0.75	3.18	1.19

Depth	POC	DOC	Ch.a	Ch.b	Ch.c	Pl.carot.	Phaeo.
0	105	1.05	1.34	0.34	0.73	0.26	0.00
1	77	1.11	1.34	0.27	0.65	0.20	0.20
3	152	1.12	1.45	0.40	0.80	0.20	0.16
5	179	1.27	1.46	0.23	0.51	0.24	0.16
7	148	1.09	1.56	0.32	1.03	0.18	0.00
10	142	1.18	1.39	0.32	0.84	0.18	0.29
20	132	-	1.28	0.31	0.53	0.33	0.56
30	124	0.88	1.12	0.21	0.39	0.25	0.51
40	97	1.15	1.23	0.32	0.66	0.16	0.47

Station	Date	Time	Sta. depth	Air temp.
84-1	28 Aug 84	0907	52	-

Cloud	Wind	Ice cover	Snow cover	Secchi
8	10	-	-	-

Depth	Temp.	Salinity	NO_2-N	NO_3-N	PO_4-P	SiO_3-Si	NH_3-N
0	2.2	26.719	0.02	0.25	0.28	4.99	0.73
1	1.0	31.126	0.03	0.06	0.32	2.77	0.44
3	0.0	31.825	0.03	0.54	0.32	2.13	0.00
5	0.0	32.023	0.05	0.79	0.53	2.59	0.00
7	0.0	32.144	0.05	1.09	0.46	3.79	0.00
10	-0.4	32.274	0.06	1.12	0.30	4.44	0.26
20	-0.6	32.416	0.07	2.61	0.46	3.42	0.44
30	-0.6	32.416	0.07	2.33	0.83	5.08	0.63
40	-0.5	32.426	0.06	2.93	0.46	2.40	0.89

Depth	POC	DOC	Ch.a	Ch.b	Ch.c	Pl.carot.	Phaeo.
0	218	1.24	3.81	0.03	1.01	0.94	1.36
1	393	1.14	6.92	0.00	1.70	1.86	1.78
3	351	1.09	7.89	0.00	1.40	1.93	2.10
5	290	0.99	6.52	0.00	1.22	1.51	2.48
7	-	1.12	6.04	0.00	1.86	1.46	2.10
10	230	1.35	5.49	0.00	1.19	1.23	2.16
20	169	1.12	3.59	0.00	0.63	0.75	1.12
30	114	1.16	2.86	0.00	0.44	0.67	1.27
40	176	1.05	2.85	0.00	0.52	0.62	1.27

Station	Date	Time	Sta. depth	Air temp.
84-5	19 Mar 84	1335	42	-27.0

Cloud	Wind	Ice cover	Snow cover	Secchi
2	46	165	3 - 50	4.5

Depth	Temp.	Salinity	NO_2-N	NO_3-N	PO_4-P	SiO_3-Si	NH_3-N
0	-1.80	32.523	0.12	4.76	1.02	13.80	1.07
1	-1.80	32.131	0.12	6.45	0.98	13.31	1.38
3	-1.80	32.734	0.12	4.76	1.00	14.32	1.22
5	-1.80	33.141	0.13	5.05	0.96	14.29	1.53
7	-1.80	33.126	0.12	5.41	0.97	16.16	1.12
10	-1.75	33.119	0.11	5.83	0.78	12.55	1.16
20	-1.75	33.153	0.09	4.00	0.91	12.46	1.02
30	-1.75	33.159	0.10	5.88	0.80	6.83	1.68
40	-1.75	33.145	0.14	7.54	0.94	12.95	1.17

Depth	POC	DOC	Ch.a	Ch.b	Ch.c	Pl.carot.	Phaeo.
0	-	-	0.26	0.06	0.13	0.09	0.00
1	-	-	0.15	0.00	0.03	0.10	0.10
3	-	-	0.15	0.05	0.09	0.10	0.16
5	-	-	0.15	0.00	0.12	0.05	0.00
7	-	-	0.15	0.00	0.03	0.05	0.19
10	-	-	0.11	0.01	0.04	0.01	0.00
20	-	-	0.15	0.00	0.03	0.08	0.00
30	-	-	0.12	0.00	0.00	0.06	0.21
40	-	-	0.15	0.06	0.09	0.09	0.19

Station	Date	Time	Sta. depth	Air temp.
84-5	31 May 84	1200	48	1.2

Cloud	Wind	Ice cover	Snow cover	Secchi
8	-	193	-	5.5

Depth	Temp.	Salinity	NO_2-N	NO_3-N	PO_4-P	SiO_3-Si	NH_3-N
0	-1.7	-	0.00	7.29	0.42	15.22	0.00
1	-1.7	33.168	0.00	6.58	0.23	17.13	0.04
3	-1.7	33.189	0.04	7.48	0.38	16.47	0.00
5	-1.8	33.199	0.04	8.62	0.54	18.18	0.16
7	-1.8	33.201	0.05	8.46	0.52	17.45	0.64
10	-1.8	33.199	0.00	8.52	0.52	16.64	0.22
20	-1.8	33.197	0.03	8.48	0.61	17.52	0.29
30	-1.8	33.206	0.03	8.49	0.27	16.54	0.49
40	-1.7	33.200	0.00	8.56	0.29	16.61	0.53

Depth	POC	DOC	Ch.a	Ch.b	Ch.c	Pl.carot.	Phaeo.
0	-	-	0.14	0.03	0.00	0.00	0.01
1	-	-	0.09	0.01	0.00	0.00	0.03
3	-	-	0.12	0.34	0.00	0.11	0.12
5	-	-	0.09	0.34	0.08	0.00	0.30
7	-	-	0.11	0.04	0.07	0.15	0.07
10	-	-	0.08	0.05	0.07	0.00	0.03
20	-	-	0.12	0.00	0.03	0.00	0.07
30	-	-	0.11	0.04	0.07	0.00	0.00
40	-	-	0.06	0.00	0.05	0.00	0.09

Station	Date	Time	Sta. depth	Air temp.
84-5B	07 Aug 84	0918	19	7.0

Cloud	Wind	Ice cover	Snow cover	Secchi
5	5	-	-	7.5

Depth	Temp.	Salinity	NO_2-N	NO_3-N	PO_4-P	SiO_3-Si	NH_3-N
0	2.0	31.502	0.07	2.33	0.51	4.25	4.13

Depth	POC	DOC	Ch.a	Ch.b	Ch.c	Pl.carot.	Phaeo.
0	380	1.62	2.49	0.22	0.53	0.77	1.75

Station	Date	Time	Sta. depth	Air temp.
84-58	21 Aug 84	0925	17	4.0

Cloud	Wind	Ice cover	Snow cover	Secchi
8	20	-	-	-

Depth	Temp.	Salinity	NO_2-N	NO_3-N	PO_4-P	SiO_3-Si	NH_3-N
0	2.0	31.050	0.00	0.16	0.25	1.48	0.30

Depth	POC	DOC	Ch.a	Ch.b	Ch.c	Pl.carot.	Phaeo.
0	-	-	6.16	0.00	1.72	1.34	1.01

Table 7. Frobisher Bay oceanographic data, 1985

Station	Date	Time	Sta. depth	Air temp.
85-1	03 Feb 85	1044	45	-

Cloud	Wind	Ice cover	Snow cover	Secchi
8	0	115	-	8.5

Depth	Temp.	Salinity	NO_2-N	NO_3-N	PO_4-P	SiO_3-Si	NH_3-N
0	-	32.190	0.00	7.72	1.08	15.11	0.59
1	-1.8	32.587	0.00	7.61	0.81	14.53	0.67
3	-1.8	32.965	0.02	7.71	0.98	12.90	0.61
5	-1.8	33.019	0.01	7.69	1.41	11.85	0.61
7	-1.8	33.104	0.00	7.16	1.29	14.63	0.86
10	-1.8	33.145	0.00	7.14	1.05	14.92	0.80
20	-1.8	33.201	0.02	6.83	0.93	15.59	0.96
30	-1.8	33.151	0.02	6.04	0.62	8.20	1.24
40	-1.8	33.129	0.00	7.60	1.31	9.54	1.76

Depth	POC	DOC	Ch.a	Ch.b	Ch.c	Pl.carot.	Phaeo.
0	-	-	0.23	0.00	0.00	0.00	0.00
1	81	1.75	0.26	0.24	0.17	0.00	0.01
3	-	-	0.21	0.18	0.10	0.00	0.00
5	-	-	0.26	0.24	0.17	0.00	0.00
7	-	-	0.32	0.31	0.25	0.00	0.00
10	91	1.75	0.31	0.29	0.21	0.03	0.00
20	96	1.35	0.42	0.00	0.00	0.00	0.00
30	-	-	0.64	0.00	0.00	0.00	0.00
40	110	1.75	0.52	0.00	0.00	0.00	0.00

Station	Date	Time	Sta. depth	Air temp.
85-1	14 Mar 85	1520	47	-16.0

Cloud	Wind	Ice cover	Snow cover	Secchi
8	-	147	25	6.0

Depth	Temp.	Salinity	NO_2-N	NO_3-N	PO_4-P	SiO_3-Si	NH_3-N
0	-1.8	33.179	0.10	6.59	1.06	17.83	0.00
1	-1.8	33.526	0.08	5.56	1.16	14.39	0.00
3	-1.8	33.179	0.05	7.38	1.06	12.11	0.00
5	-1.8	33.186	0.06	7.69	0.90	18.41	0.00
7	-1.8	33.186	0.03	7.43	0.95	16.49	0.00
10	-1.8	33.420	0.03	6.15	1.03	13.28	0.00
20	-1.8	33.210	0.10	6.65	0.79	16.66	0.00
30	-1.8	33.212	0.09	7.91	0.95	12.93	0.00
40	-1.8	33.617	0.07	7.75	1.08	12.99	0.31

Depth	POC	DOC	Ch.a	Ch.b	Ch.c	Pl.carot.	Phaeo.
0	70	1.24	0.09	0.33	0.20	0.02	0.19
1	64	1.43	0.21	0.27	0.18	0.00	0.00
3	62	1.27	0.11	0.04	0.07	0.08	0.00
5	42	1.30	0.10	0.13	0.15	0.02	0.00
7	61	1.47	0.10	0.13	0.15	0.02	0.19
10	52	1.25	0.10	0.13	0.15	0.00	0.00
20	74	1.56	0.15	0.19	0.23	0.04	0.05
30	64	1.68	0.10	0.13	0.15	0.08	0.19
40	75	1.38	0.15	0.18	0.35	0.02	0.05

Station	Date	Time	Sta. depth	Air temp.
85-1	19 Mar 85	1357	48	-20

Cloud	Wind	Ice cover	Snow cover	Secchi
0	1.5	147	20	5.5

Depth	Temp.	Salinity	NO_2-N	NO_3-N	PO_4-P	SiO_3-Si	NH_3-N
0	-1.8	33.076	0.11	6.92	0.95	18.00	0.00
1	-1.8	33.112	0.02	6.50	0.95	18.24	0.00
3	-	33.168	0.01	5.71	1.11	18.47	0.88
5	-	33.193	0.01	7.08	1.00	11.58	3.10
7	-	33.190	0.08	7.91	0.95	17.95	2.07
10	-1.8	33.111	0.05	7.85	1.00	15.49	0.69
20	-1.8	33.231	0.02	7.81	0.98	17.60	1.82
30	-1.8	33.246	0.05	7.98	0.95	18.12	1.53
40	-1.8	33.272	0.00	8.76	0.95	8.14	4.13

Depth	POC	DOC	Ch.a	Ch.b	Ch.c	Pl.carot.	Phaeo.
0	107	1.44	0.04	0.16	0.16	0.00	0.00
1	-	-	0.15	0.19	0.23	0.00	0.00
3	-	-	0.10	0.13	0.15	0.02	0.00
5	-	-	0.10	0.13	0.15	0.00	0.19
7	-	-	0.20	0.26	0.31	0.00	0.00
10	122	2.24	0.15	0.19	0.23	0.00	0.00
20	-	-	0.00	0.00	0.12	0.10	0.23
30	-	-	0.25	0.43	0.34	0.00	0.00
40	128	1.85	0.15	0.19	0.23	0.04	0.00

Station	Date	Time	Sta. depth	Air temp.
85-1	24 Apr 85	1627	41	-1.0

Cloud	Wind	Ice cover	Snow cover	Secchi
8	18	164	25	6.0

Depth	Temp.	Salinity	NO_2-N	NO_3-N	PO_4-P	SiO_3-Si	NH_3-N
0	-	33.296	0.08	8.40	0.83	15.84	0.00
1	-	33.305	0.11	8.44	1.07	16.63	0.00
3	-	33.306	0.13	8.08	0.91	15.74	0.00
5	-	33.302	0.11	8.55	1.57	15.84	0.00
7	-	33.318	0.10	8.47	2.01	15.94	0.00
10	-	33.299	0.10	8.61	1.21	16.44	0.00
20	-	33.316	0.12	8.25	1.07	16.04	0.00
30	-	33.328	0.11	6.73	1.16	12.57	0.00
40	-	33.323	0.10	6.28	1.32	12.48	0.00

Depth	POC	DOC	Ch.a	Ch.b	Ch.c	Pl.carot.	Phaeo.
0	-	-	0.35	0.53	0.74	0.51	0.00
1	-	-	0.31	0.39	0.46	0.01	0.00
3	-	-	0.00	0.00	0.12	0.10	0.23
5	-	-	0.39	0.06	0.44	0.20	0.00
7	-	-	0.40	0.56	1.19	0.01	3.02
10	109	1.57	0.12	0.00	0.11	0.19	0.00
20	120	1.87	0.16	0.10	0.14	0.06	0.00
30	-	-	0.15	0.18	0.35	0.14	0.28
40	188	1.53	-	-	-	-	-

Station	Date	Time	Sta. depth	Air temp.
85-1	29 May 85	1105	42	3.8

Cloud	Wind	Ice cover	Snow cover	Secchi
5	5	182	15	10

Depth	Temp.	Salinity	NO_2-N	NO_3-N	PO_4-P	SiO_3-Si	NH_3-N
0	-0.65	18.633	0.06	5.56	0.60	10.28	1.41
1	-1.30	28.882	0.09	7.67	0.92	14.55	0.39
3	-1.40	29.909	0.08	7.92	0.92	18.11	0.28
5	-1.55	32.792	0.09	8.28	1.09	15.77	0.00
7	-1.60	33.101	0.06	8.43	1.09	16.33	0.00
10	-1.60	33.258	0.07	8.89	1.07	15.58	0.10
20	-1.70	33.298	0.06	9.11	1.04	16.42	0.00
30	-1.65	33.295	0.05	9.12	1.07	16.33	0.00
40	-1.65	33.301	0.07	8.99	1.07	16.80	0.00

Depth	POC	DOC	Ch.a	Ch.b	Ch.c	Pl.carot.	Phaeo.
0	560	2.27	0.60	0.36	0.38	0.06	0.00
1	-	-	0.65	0.42	0.45	0.12	0.00
3	-	-	0.43	0.26	0.23	0.10	0.07
5	-	-	0.00	0.54	0.27	0.06	0.15
7	-	-	0.35	0.54	0.62	0.00	0.00
10	198	1.76	0.39	0.70	0.78	0.00	0.00
20	142	1.34	0.19	0.46	0.35	0.00	0.00
30	-	-	0.25	0.42	0.47	0.00	0.00
40	103	1.59	0.19	0.44	0.47	0.00	0.00

Station	Date	Time	Sta. depth	Air temp.
85-1	01 Aug 85	1020	59	5.7

Cloud	Wind	Ice cover	Snow cover	Secchi
8	32	-	-	10

Depth	Temp.	Salinity	NO_2-N	NO_3-N	PO_4-P	SiO_3-Si	NH_3-N
0	-0.4	32.275	0.05	0.46	0.64	2.37	0.83
1	-0.4	32.130	0.03	0.46	0.73	4.01	0.40
3	-0.4	32.331	0.05	0.49	0.55	2.18	0.40
5	-0.4	32.285	0.04	0.35	0.56	1.50	0.00
7	-0.4	32.292	0.10	0.34	0.59	2.18	0.47
10	-0.4	32.276	0.04	0.40	0.63	3.43	0.52
20	-0.5	32.282	0.07	0.61	0.88	3.14	0.76
30	-0.8	32.332	0.07	2.00	0.83	4.40	1.47
40	-0.8	32.360	0.07	2.22	0.80	4.40	1.78

Depth	POC	DOC	Ch.a	Ch.b	Ch.c	Pl.carot.	Phaeo.
0	430	1.76	7.16	0.07	2.16	1.06	2.70
1	421	1.76	6.54	0.01	1.79	1.02	2.58
3	582	1.41	6.88	0.05	1.79	1.04	2.23
5	437	1.57	6.96	0.49	1.83	1.06	2.42
7	416	1.60	7.11	0.03	1.84	1.17	2.83
10	460	1.27	6.65	0.06	1.74	1.02	2.76
20	454	1.29	7.28	0.04	1.90	1.06	2.43
30	284	1.54	5.27	0.26	1.52	0.75	1.66
40	257	2.07	5.08	0.46	1.38	0.77	1.15

Station	Date	Time	Sta. depth	Air temp.
85-1	09 Aug 85	1000	55	5.0

Cloud	Wind	Ice cover	Snow cover	Secchi
7	12	-	-	-

Depth	Temp.	Salinity	NO_2-N	NO_3-N	PO_4-P	SiO_3-Si	NH_3-N
0	2.7	31.540	0.00	0.00	0.57	2.22	0.17
1	2.7	31.574	0.00	0.00	0.54	2.02	0.07
3	1.7	31.784	0.00	0.01	0.52	1.51	0.24
5	1.2	31.956	0.00	0.01	0.49	0.91	0.72
7	1.3	31.941	0.03	0.00	0.47	2.32	0.29
10	0.7	32.094	0.00	0.01	0.54	2.42	0.41
20	0.5	32.163	0.00	0.01	0.59	1.81	0.00
30	0.4	32.217	0.00	0.35	0.64	2.32	0.36
40	0.0	32.275	0.02	1.20	0.76	4.03	0.84

Depth	POC	DOC	Ch.a	Ch.b	Ch.c	Pl.carot.	Phaeo.
0	335	1.85	2.99	0.32	1.04	0.33	0.64
1	314	1.75	3.14	0.54	1.03	0.28	0.92
3	509	1.68	3.63	0.13	0.91	0.47	1.21
5	512	1.61	4.14	0.13	1.34	0.60	2.06
7	481	1.46	4.25	0.19	1.16	0.47	1.56
10	380	1.43	4.71	0.16	1.26	0.81	1.86
20	395	1.62	5.56	0.12	1.47	1.08	1.44
30	375	1.71	6.30	0.11	1.95	0.99	2.20
40	266	1.94	5.28	0.18	1.31	0.74	1.20

Station	Date	Time	Sta. depth	Air temp.
85-1	15 Aug 85	0915	57	10

Cloud	Wind	Ice cover	Snow cover	Secchi
0	0	-	-	13

Depth	Temp.	Salinity	NO_2-N	NO_3-N	PO_4-P	SiO_3-Si	NH_3-N
0	4.7	27.266	0.01	0.12	0.20	6.15	0.99
1	4.2	28.894	0.00	0.11	0.42	4.53	0.90
3	2.9	30.971	0.00	0.04	0.49	0.60	0.59
5	1.6	32.062	0.00	0.01	0.47	0.60	0.34
7	0.9	31.966	0.00	0.00	0.44	0.50	0.29
10	0.6	32.157	0.01	0.03	0.54	0.50	0.32
20	0.0	32.111	0.00	0.01	0.57	0.40	0.19
30	-0.2	32.328	0.01	0.77	0.71	2.62	0.46
40	-0.2	32.353	0.02	1.97	0.81	2.52	1.22

Depth	POC	DOC	Ch.a	Ch.b	Ch.c	Pl.carot.	Phaeo.
0	218	2.05	1.20	0.00	0.45	0.01	0.00
1	228	1.70	0.96	0.08	0.49	0.00	0.00
3	278	1.53	1.65	0.05	0.40	0.21	0.44
5	373	1.82	2.57	0.00	0.52	0.44	0.80
7	411	1.76	3.01	0.03	0.91	0.44	0.64
10	507	1.69	4.26	0.09	1.20	0.77	0.88
20	397	1.64	3.74	0.16	0.98	0.54	0.72
30	527	2.29	6.06	0.38	1.45	1.27	1.60
40	291	1.94	4.39	0.00	1.01	0.96	1.29

Station	Date	Time	Sta. depth	Air temp.
85-1	22 Aug 85	0930	56	7.6

Cloud	Wind	Ice cover	Snow cover	Secchi
0	0	-	-	14

Depth	Temp.	Salinity	NO_2-N	NO_3-N	PO_4-P	SiO_3-Si	NH_3-N
0	2.4	29.766	0.04	0.00	0.29	4.51	0.05
1	2.2	31.122	0.00	0.00	0.41	5.44	0.59
3	1.8	31.734	0.00	0.00	0.51	2.43	0.40
5	1.8	31.941	0.00	0.00	0.48	2.33	0.53
7	1.8	31.851	0.00	0.00	0.51	2.95	0.63
10	1.6	32.182	0.00	0.16	0.48	0.78	0.65
20	1.5	32.277	0.01	0.53	0.70	4.09	0.90
30	0.4	32.324	0.03	0.93	0.75	4.19	1.10
40	0.4	32.335	0.03	1.40	0.75	3.99	1.16

Depth	POC	DOC	Ch.a	Ch.b	Ch.c	Pl.carot.	Phaeo.
0	276	2.22	1.20	0.00	0.49	0.21	0.83
1	333	1.71	1.54	0.00	0.61	0.21	0.48
3	311	2.31	2.10	0.00	0.74	0.14	0.51
5	219	1.90	2.45	0.00	0.90	0.31	0.84
7	238	2.19	2.46	0.47	1.03	0.20	1.13
10	321	1.94	3.30	0.00	1.08	0.46	1.34
20	209	1.60	3.07	0.02	0.78	0.48	0.96
30	228	2.75	3.52	0.08	0.97	0.69	0.80
40	175	1.77	2.68	0.00	0.83	0.48	0.31

Station	Date	Time	Sta. depth	Air temp.
85-1	02 Oct 85	1000	-	3.1

Cloud	Wind	Ice cover	Snow cover	Secchi
8	5	-	-	-

Depth	Temp.	Salinity	NO_2-N	NO_3-N	PO_4-P	SiO_3-Si	NH_3-N
0	0.5	32.136	0.05	3.69	0.86	8.56	0.97
1	0.4	32.383	0.07	3.83	0.89	9.47	0.95
3	0.5	32.359	0.06	3.74	0.81	8.56	0.98
5	0.5	32.432	0.06	3.82	0.89	8.56	0.94
7	0.4	32.428	0.02	3.88	1.03	8.77	1.35
10	0.4	32.456	0.06	3.93	0.91	9.27	0.86
20	0.4	32.470	0.05	4.10	0.89	9.07	1.05
30	0.4	32.466	0.05	4.07	0.89	8.56	1.28
40	0.4	32.496	0.05	4.27	0.98	9.07	1.02

Depth	POC	DOC	Ch.a	Ch.b	Ch.c	Pl.carot.	Phaeo.
0	96	2.26	0.55	0.23	0.00	0.31	0.48
1	119	1.82	0.89	0.22	0.34	0.12	0.00
3	64	1.71	0.80	0.00	0.47	0.27	0.00
5	62	1.77	0.86	0.00	0.34	0.27	0.00
7	119	2.14	0.77	0.29	0.23	0.23	0.17
10	80	1.61	0.83	0.21	0.71	0.27	0.00
20	61	1.68	0.61	0.16	0.33	0.20	0.00
30	77	2.68	0.67	0.13	0.32	0.20	0.00
40	170	1.60	0.76	0.34	0.68	0.16	0.17

Station	Date	Time	Sta. depth	Air temp.
85-5	09 Feb 85	1358	62	-35.0

Cloud	Wind	Ice cover	Snow cover	Secchi
0	10	119	15	5.5

Depth	Temp.	Salinity	NO_2-N	NO_3-N	PO_4-P	SiO_3-Si	NH_3-N
0	-	33.062	0.03	7.15	1.15	10.89	0.55
1	-	33.131	0.01	6.00	1.05	13.38	0.12
3	-	33.084	0.03	5.11	0.91	10.70	0.41
5	-	33.032	0.05	6.17	0.76	12.33	0.00
7	-	33.113	0.05	6.26	1.10	14.92	0.00
10	-	32.998	0.01	6.74	0.57	8.39	0.00
20	-	32.773	0.00	4.31	0.69	7.34	0.00
30	-	33.201	0.02	5.21	0.29	4.56	1.67
40	-	33.179	0.04	7.35	0.60	12.90	1.69

Depth	POC	DOC	Ch.a	Ch.b	Ch.c	Pl.carot.	Phaeo.
0	-	-	0.11	0.04	0.07	0.00	0.19
1	89	1.32	0.35	0.00	0.00	0.12	0.00
3	-	-	0.00	0.00	0.00	0.08	0.59
5	-	-	0.15	0.30	0.19	0.16	0.05
7	-	-	0.16	0.12	0.02	0.00	0.05
10	122	1.67	0.21	0.37	0.41	0.00	0.00
20	137	1.12	0.15	0.29	0.31	0.00	0.05
30	-	-	0.20	0.26	0.31	0.00	0.00
40	148	1.39	0.26	0.34	0.26	0.00	0.00

Station	Date	Time	Sta. depth	Air temp.
85-5	01 June 85	1045	56	6.5

Cloud	Wind	Ice cover	Snow cover	Secchi
2	0	161	15	-

Depth	Temp.	Salinity	NO_2-N	NO_3-N	PO_4-P	SiO_3-Si	NH_3-N
0	-0.70	17.473	0.03	4.19	0.44	8.19	0.00
1	-1.20	26.156	0.04	6.85	0.73	17.29	0.00
3	-1.60	31.995	0.03	8.05	0.99	14.78	0.00
5	-1.65	33.148	0.01	8.60	1.04	16.22	0.00
7	-1.65	33.241	0.04	8.59	0.97	35.06	0.00
10	-1.65	-	0.04	8.71	1.16	15.45	0.00
20	-1.65	33.579	0.08	8.46	0.97	15.55	0.00
30	-1.55	33.276	0.08	8.67	1.04	16.22	0.00
40	-1.50	33.271	0.02	8.66	1.14	15.55	0.00

Depth	POC	DOC	Ch.a	Ch.b	Ch.c	Pl.carot.	Phaeo.
0	-	-	0.44	0.75	0.98	0.07	0.00
1	-	-	0.50	0.84	0.81	0.00	0.48
3	-	-	0.52	0.54	0.80	0.00	0.00
5	-	-	0.43	0.23	0.48	0.03	0.00
7	-	-	0.60	0.95	1.21	0.00	0.00
10	-	-	0.66	0.92	1.20	0.00	0.00
20	-	-	0.85	1.23	1.96	0.00	0.00
30	-	-	0.61	0.75	1.16	0.00	0.00
40	-	-	0.61	0.87	1.00	0.00	0.21

Station	Date	Time	Sta. depth	Air temp.
85-5	20 Aug 85	1000	88	5.4

Cloud	Wind	Ice cover	Snow cover	Secchi
0	0	-	-	18

Depth	Temp.	Salinity	NO_2-N	NO_3-N	PO_4-P	SiO_3-Si	NH_3-N
0	4.3	30.803	0.06	0.00	0.24	2.64	0.31
1	4.0	30.795	0.06	0.00	0.24	3.88	0.18
3	2.6	31.366	0.08	0.00	0.36	2.12	0.08
5	2.1	31.626	0.06	0.00	0.38	0.67	0.20
7	1.7	31.627	0.06	0.00	0.36	1.92	0.17
10	1.4	31.984	0.08	0.00	0.43	2.95	0.14
20	0.7	32.260	0.05	0.03	0.46	1.81	0.20
30	0.4	32.103	0.07	0.27	0.48	1.50	0.20
40	0.4	32.302	0.15	0.76	0.58	0.98	0.36

Depth	POC	DOC	Ch.a	Ch.b	Ch.c	Pl.carot.	Phaeo.
0	-	-	0.60	0.27	0.29	0.00	0.00
1	-	-	0.55	0.16	0.58	0.00	0.48
3	-	-	0.92	0.00	0.33	0.18	0.59
5	-	-	1.48	0.02	0.58	0.16	0.16
7	-	-	1.25	0.00	0.32	0.46	0.69
10	-	-	1.59	0.08	0.41	0.27	0.12
20	-	-	2.66	0.10	0.88	0.48	0.08
30	-	-	3.29	0.09	0.92	0.54	0.43
40	-	-	3.13	0.00	0.65	0.48	0.37

Station	Date	Time	Sta. depth	Air temp.
85-58	13 Aug 85	0900	-	7.9

Cloud	Wind	Ice cover	Snow cover	Secchi
6	1	-	-	-

Depth	Temp.	Salinity	NO_2-N	NO_3-N	PO_4-P	SiO_3-Si	NH_3-N
0	1.9	31.812	0.00	0.11	0.52	0.60	0.48

Depth	POC	DOC	Ch.a	Ch.b	Ch.c	Pl.carot.	Phaeo.
0	-	-	2.15	0.18	0.66	0.35	0.15

Station	Date	Time	Sta. depth	Air temp.
85-52	29 Apr 85	1630	108	-10.0

Cloud	Wind	Ice cover	Snow cover	Secchi
0	35	165	36	7.0

Depth	Temp.	Salinity	NO_2-N	NO_3-N	PO_4-P	SiO_3-Si	NH_3-N
0	-	31.330	0.05	6.90	1.90	11.39	0.00
1	-	32.648	0.07	8.63	1.21	15.54	0.00
3	-	32.897	0.06	8.31	1.05	13.66	0.00
5	-	32.657	0.11	8.41	1.62	24.46	0.00
7	-	32.589	0.10	8.70	0.94	15.74	0.00
10	-	31.925	0.08	8.41	1.32	15.74	0.00
20	-	33.755	0.12	8.04	2.09	15.15	0.00
30	-	32.597	0.09	8.78	1.51	16.93	0.00
40	-	33.670	0.10	8.74	1.46	16.14	0.00
75	-	33.096	-	-	-	-	-
109	-	32.878	-	-	-	-	-

Depth	POC	DOC	Ch.a	Ch.b	Ch.c	Pl.carot.	Phaeo.
0	-	-	0.35	0.58	0.25	0.00	0.00
1	-	-	0.23	0.00	0.05	0.00	0.00
3	-	-	0.39	0.10	0.07	0.00	0.00
5	-	-	0.28	0.09	0.00	0.29	0.00
7	-	-	0.32	0.23	0.04	0.00	0.00
10	-	-	0.21	0.27	0.18	0.00	0.00
20	-	-	0.32	0.23	0.04	0.00	0.00
30	-	-	0.38	0.30	0.12	0.00	0.00
40	-	-	0.27	0.27	0.00	0.00	0.00
75	-	-	-	-	-	-	-
109	-	-	-	-	-	-	-

Table 8. Frobisher Bay oceanographic data, 1986

Station	Date	Time	Sta. depth	Air temp.
86-1	05 Mar 86	1607	-	-29.4

Cloud	Wind	Ice cover	Snow cover	Secchi
1	16	86	36	-

Depth	Temp.	Salinity	NO_2-N	NO_3-N	PO_4-P	SiO_3-Si	NH_3-N
0	-	31.017	0.05	3.76	0.76	8.75	2.59
1	-	32.031	0.06	3.35	0.88	7.32	1.30
3	-	33.023	0.08	5.79	2.26	5.99	1.33
5	-	33.897	0.05	2.91	1.45	5.42	1.12
7	-	33.182	0.08	6.54	0.98	6.75	1.27
10	-	33.140	0.07	4.07	0.86	4.66	1.36
20	-	33.100	0.08	4.61	2.10	5.42	1.39
30	-	33.085	0.08	3.97	0.76	5.23	1.12
40	-	33.314	0.08	3.50	1.19	5.13	1.06

Depth	POC	DOC	Ch.a	Ch.b	Ch.c	Pl.carot.	Phaeo.
0	55	-	0.21	0.17	0.22	0.00	0.15
1	48	2.42	0.27	0.14	0.21	0.08	0.92
3	29	1.62	0.03	0.25	0.25	0.00	0.32
5	61	1.59	0.32	0.30	0.37	0.38	0.56
7	124	1.40	0.57	0.00	0.17	0.08	0.03
10	96	3.07	0.27	0.14	0.21	0.02	0.00
20	89	0.24	0.32	0.20	0.29	0.00	0.56
30	104	1.88	0.15	0.17	0.47	0.14	0.28
40	410	1.93	0.37	0.27	0.36	0.00	0.00

Station	Date	Time	Sta. depth	Air temp.
86-1	12 Mar 86	1440	37	-27

Cloud	Wind	Ice cover	Snow cover	Secchi
0	0	93	-	-

Depth	Temp.	Salinity	NO_2-N	NO_3-N	PO_4-P	SiO_3-Si	NH_3-N
0	-	31.597	0.05	3.51	0.43	5.21	0.92
1	-	32.601	0.05	2.70	0.43	3.98	0.89
3	-	32.950	0.07	2.64	0.57	5.21	0.74
5	-	33.015	0.07	3.30	0.45	5.59	1.50
7	-	33.085	0.05	4.05	0.48	5.02	0.74
10	-	33.176	0.06	2.48	0.69	6.92	0.84
20	-	33.107	0.05	2.76	0.38	4.55	0.82
30	-	33.125	0.06	3.91	0.43	3.60	1.20
35	-	33.090	0.05	2.58	0.40	4.55	0.99

Depth	POC	DOC	Ch.a	Ch.b	Ch.c	Pl.carot.	Phaeo.
0	54	1.61	0.49	0.33	0.19	0.00	0.00
1	64	1.15	0.32	0.31	0.25	0.02	0.00
3	40	1.52	0.37	0.28	0.24	0.02	0.00
5	56	1.79	0.26	0.26	0.05	0.01	0.00
7	39	1.31	0.40	0.00	0.11	0.02	0.00
10	72	1.21	0.26	0.26	0.05	0.04	0.00
20	75	1.16	0.17	0.02	0.00	0.00	0.00
30	100	1.50	0.32	0.23	0.04	0.01	0.00
35	63	0.23	0.39	0.11	0.00	0.01	0.00

Station	Date	Time	Sta. depth	Air temp.
86-1	07 May 86	1440	40	0

Cloud	Wind	Ice cover	Snow cover	Secchi
0	3	126	28	9

Depth	Temp.	Salinity	NO_2-N	NO_3-N	PO_4-P	SiO_3-Si	NH_3-N
0	-1.5	31.747	0.05	5.64	0.46	11.90	0.10
1	-1.5	31.983	0.07	5.52	0.53	14.73	0.05
3	-1.6	33.070	0.08	5.73	0.58	14.04	0.26
5	-1.6	33.061	0.10	6.23	0.50	11.90	0.38
7	-1.6	33.124	0.08	5.59	0.58	14.14	0.43
10	-1.6	33.155	0.07	4.98	0.62	16.58	0.23
20	-1.6	33.182	0.05	5.00	0.46	11.51	0.18
30	-1.6	33.187	0.07	4.98	0.60	13.75	0.13
39	-1.6	33.193	0.10	3.31	0.62	15.80	0.05

Depth	POC	DOC	Ch.a	Ch.b	Ch.c	Pl.carot.	Phaeo.
0	193	1.17	0.26	0.23	0.30	0.12	0.00
1	83	1.44	0.20	0.25	0.43	0.08	0.00
3	82	0.85	0.21	0.15	0.34	0.08	0.00
5	88	1.12	0.21	0.17	0.22	0.12	0.00
7	82	1.97	0.15	0.29	0.31	0.16	0.05
10	76	1.02	0.09	0.22	0.24	0.00	0.00
20	97	1.06	0.32	0.34	0.01	0.06	0.00
30	80	0.96	0.21	0.19	0.00	0.06	0.00
39	39	1.03	0.16	0.13	0.00	0.15	0.00

Station	Date	Time	Sta. depth	Air temp.
86-1	13 May 86	1230	44.5	4.2

Cloud	Wind	Ice cover	Snow cover	Secchi
7	9	129	32	8

Depth	Temp.	Salinity	NO_2-N	NO_3-N	PO_4-P	SiO_3-Si	NH_3-N
0	-1.5	32.152	0.01	4.52	1.43	8.94	0.18
1	-1.5	32.708	0.02	5.47	2.00	5.99	0.03
3	-1.6	33.024	0.04	4.16	1.43	7.22	0.12
5	-1.6	33.126	0.04	3.68	1.43	6.37	0.00
7	-1.6	33.154	0.02	5.26	0.76	6.37	0.00
10	-1.6	33.166	0.01	4.96	0.88	7.51	0.24
20	-1.6	33.188	0.01	4.28	0.55	5.04	0.35
30	-1.6	33.124	0.05	3.82	1.07	11.88	0.00
40	-1.6	33.215	0.02	5.46	0.83	6.46	0.00

Depth	POC	DOC	Ch.a	Ch.b	Ch.c	Pl.carot.	Phaeo.
0	56	1.15	0.32	0.22	0.17	0.10	0.00
1	67	0.89	0.15	0.19	0.23	0.10	0.28
3	79	1.33	0.21	0.17	0.22	0.06	0.00
5	83	1.10	0.22	0.08	0.14	0.02	0.00
7	124	0.99	0.38	0.18	0.28	0.04	0.00
10	82	1.30	0.15	0.19	0.23	0.03	0.00
20	64	0.89	0.27	0.14	0.21	0.03	0.00
30	66	1.12	0.20	0.26	0.31	0.00	0.00
40	40	1.03	0.26	0.21	0.54	0.00	0.00

Station	Date	Time	Sta. depth	Air temp.
86-1	26 July 86	1038	52.5	10.8

Cloud	Wind	Ice cover	Snow cover	Secchi
1	0	0	0	11

Depth	Temp.	Salinity	NO_2-N	NO_3-N	PO_4-P	SiO_3-Si	NH_3-N
0	4.2	21.433	0.00	0.00	0.31	6.82	0.00
1	2.8	28.925	0.02	0.00	0.36	1.56	0.00
3	2.4	29.995	0.02	0.00	0.31	0.39	0.00
5	1.3	31.272	0.01	0.01	0.36	0.00	0.00
7	0.9	31.827	0.01	0.03	0.31	0.00	0.00
10	0.7	32.026	0.02	0.00	0.34	0.00	0.00
20	-0.2	32.283	0.00	0.00	0.46	0.00	0.00
30	-0.4	32.352	0.02	0.14	0.46	0.00	0.00
40	-0.4	32.373	0.02	0.60	0.43	0.00	0.09

Depth	POC	DOC	Ch.a	Ch.b	Ch.c	Pl.carot.	Phaeo.
0	183	1.14	0.62	0.06	0.37	0.12	0.00
1	256	1.53	1.25	0.07	0.16	0.25	0.01
3	299	1.59	1.70	0.09	0.72	0.41	0.53
5	328	1.56	1.70	0.09	0.72	0.22	0.76
7	389	1.13	3.00	0.12	1.00	0.64	1.32
10	483	1.42	3.52	0.08	0.97	0.83	1.03
20	526	1.28	6.78	0.00	1.76	1.60	1.59
30	291	1.04	4.72	0.00	1.34	1.23	1.40
40	341	1.48	5.00	0.03	1.22	1.17	1.19

Station	Date	Time	Sta. depth	Air temp.
86-1	27 July 86	1100	-	-

Cloud	Wind	Ice cover	Snow cover	Secchi
0	0	-	-	-

Depth	Temp.	Salinity	NO_2-N	NO_3-N	PO_4-P	SiO_3-Si	NH_3-N
3	-	27.831	0.00	0.00	0.38	6.05	0.51

Depth	POC	DOC	Ch.a	Ch.b	Ch.c	Pl.carot.	Phaeo.
3	305	4.31	1.53	0.00	0.45	0.35	0.48

Station	Date	Time	Sta. depth	Air temp.
86-1	31 July 86	0930	60	5.0

Cloud	Wind	Ice cover	Snow cover	Secchi
8	12	-	-	-

Depth	Temp.	Salinity	NO_2-N	NO_3-N	PO_4-P	SiO_3-Si	NH_3-N
3	2.4	28.602	0.02	0.02	0.14	6.44	2.03

Depth	POC	DOC	Ch.a	Ch.b	Ch.c	Pl.carot.	Phaeo.
3	231	1.01	0.74	0.01	0.23	0.17	0.31

Station	Date	Time	Sta. depth	Air temp.
86-1	2 Aug 86	-	-	-

Cloud	Wind	Ice cover	Snow cover	Secchi
-	-	-	-	-

Depth	Temp.	Salinity	NO_2-N	NO_3-N	PO_4-P	SiO_3-Si	NH_3-N
3	-	-	0.02	0.10	0.31	4.10	0.00

Depth	POC	DOC	Ch.a	Ch.b	Ch.c	Pl.carot.	Phaeo.
3	390	1.25	1.27	0.46	0.95	0.00	0.79

Station	Date	Time	Sta. depth	Air temp.
86-1	07 Aug 86	0905	49	5.4

Cloud	Wind	Ice cover	Snow cover	Secchi
4	2	-	-	-

Depth	Temp.	Salinity	NO_2-N	NO_3-N	PO_4-P	SiO_3-Si	NH_3-N
0	2.3	14.079	0.00	0.50	0.24	8.85	0.18
1	0.8	31.489	0.00	0.31	0.36	0.68	0.28
3	0.7	31.600	0.01	0.07	0.38	0.20	0.03
5	0.3	32.305	0.01	0.15	0.58	0.88	0.00
7	0.3	32.251	0.01	0.13	1.22	0.00	0.00
10	0.1	32.343	0.00	0.33	1.42	0.00	0.03
20	-0.1	32.388	0.01	0.51	0.55	0.29	0.13
30	-0.2	32.413	0.02	1.61	0.46	0.59	0.43
40	-0.2	32.413	0.01	0.98	0.46	0.88	0.28

Depth	POC	DOC	Ch.a	Ch.b	Ch.c	Pl.carot.	Phaeo.
0	-	-	0.51	0.03	0.18	0.23	0.00
1	-	-	3.18	0.04	0.97	0.53	1.15
3	-	-	3.56	0.22	1.25	0.70	0.67
5	-	-	5.06	0.00	1.70	0.99	1.05
7	-	-	4.73	0.00	1.38	1.00	0.95
10	-	-	4.83	0.00	1.65	1.01	1.59
20	-	-	5.82	0.00	1.88	1.27	1.82
30	-	-	4.33	0.00	1.26	1.08	1.43
40	-	-	4.98	0.00	1.38	1.27	1.78

Station	Date	Time	Sta. depth	Air temp.
86-1	18 Aug 86	0940	60	5.4

Cloud	Wind	Ice cover	Snow cover	Secchi
7	2	-	-	4.5

Depth	Temp.	Salinity	NO_2-N	NO_3-N	PO_4-P	SiO_3-Si	NH_3-N
0	4.4	22.551	0.00	0.05	0.19	2.82	0.11
1	2.5	30.129	0.00	0.00	0.21	0.57	0.00
3	2.1	31.164	0.00	0.00	0.26	0.10	0.00
5	1.6	31.801	0.00	0.00	0.26	0.10	0.00
7	1.2	32.036	0.00	0.00	0.29	0.00	0.00
10	1.2	32.070	0.00	0.02	0.21	0.00	0.00
20	1.1	32.179	0.00	0.14	0.21	0.00	0.00
30	0.7	32.223	0.00	0.18	0.26	0.00	0.00
40	0.8	32.245	0.00	0.25	0.26	0.10	0.11

Depth	POC	DOC	Ch.a	Ch.b	Ch.c	Pl.carot.	Phaeo.
0	-	-	1.19	0.07	0.42	0.22	0.37
1	-	-	2.49	0.08	0.94	0.35	1.39
3	-	-	2.60	0.22	0.97	0.32	1.12
5	-	-	2.94	0.14	1.13	0.49	1.00
7	-	-	4.38	0.00	1.46	0.70	1.52
10	-	-	4.21	0.00	1.40	0.74	1.47
20	-	-	6.05	0.00	1.69	1.20	2.19
30	-	-	5.88	0.00	1.51	1.23	1.68
40	-	-	5.71	0.00	1.57	1.27	1.86

Station	Date	Time	Sta. depth	Air temp.
86-5	12 Aug 86	0912	84	7.4

Cloud	Wind	Ice cover	Snow cover	Secchi
8	0	-	-	12

Depth	Temp.	Salinity	NO_2-N	NO_3-N	PO_4-P	SiO_3-Si	NH_3-N
0	0.9	32.206	0.00	0.00	0.48	2.21	0.14
1	0.8	32.218	0.00	0.00	0.45	1.72	0.00
3	0.7	32.221	0.00	0.00	0.33	1.48	0.00
5	0.6	32.221	0.00	0.02	0.31	1.48	0.00
7	0.6	32.221	0.00	0.09	0.38	1.23	0.00
10	0.5	32.224	0.00	0.02	-	-	0.00
20	0.5	32.257	0.00	0.07	0.50	0.25	0.81
30	0.5	32.246	0.00	0.23	0.48	1.23	0.01
40	0.4	32.246	0.00	0.18	0.43	1.97	0.00

Depth	POC	DOC	Ch.a	Ch.b	Ch.c	Pl.carot.	Phaeo.
0	-	-	3.58	0.01	1.32	0.66	0.89
1	-	-	5.57	0.00	1.76	0.91	2.12
3	-	-	5.58	0.00	1.80	0.97	1.90
5	-	-	6.56	0.00	1.91	1.27	2.35
7	-	-	6.73	0.00	2.09	1.25	2.18
10	-	-	6.57	0.00	1.58	1.27	2.35
20	-	-	6.68	0.00	2.01	1.37	2.08
30	-	-	6.34	0.00	1.93	1.27	2.52
40	-	-	6.32	0.00	2.03	1.25	2.43

Station	Date	Time	Sta. deptn	Air temp.
86-58	29 July 86	0911	17	10.1

Cloud	Wind	Ice cover	Snow cover	Secchi
8	.0	-	-	-

Deptn	Temp.	Salinity	NO_2-N	NO_3-N	PO_4-P	SiO_3-Si	NH_3-N
0	2.0	31.481	0.01	0.05	0.34	3.51	0.38

Depth	POC	DOC	Ch.a	Ch.b	Ch.c	Pl.carot.	Phaeo.
0	-	-	1.08	0.02	0.47	0.21	0.41

Station	Date	Time	Sta. depth	Air temp.
86-5B	14 Aug 86	0930	10	4.4

Cloud	Wind	Ice cover	Snow cover	Secchi
8	8	-	-	-

Depth	Temp.	Salinity	NO_2-N	NO_3-N	PO_4-P	SiO_3-Si	NH_3-N
0	3.5	23.454	0.00	0.07	0.33	7.56	0.00

Depth	POC	DOC	Ch.a	Ch.b	Ch.c	Pl.carot.	Phaeo.
0	-	-	1.46	0.20	0.75	0.18	0.39